



United States
Environmental Protection
Agency

FACTS ABOUT LEAD IN RESIDENTIAL SOIL

Rico Colorado

December 2003

Soil samples collected by the Environmental Protection Agency this fall identified high levels of lead in the yards of some homes in Rico.

This fact sheet answers questions residents may have about exposure to lead.

If you have additional questions about lead risks, please contact the following experts:

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How can I come in contact with lead?

Lead is a common, naturally-occurring metal used in many aspects of our daily lives. It was once used as an additive in gasoline, in household plumbing and in paint. Government regulations try to reduce our exposure to lead from such products because lead can pose a health threat, especially to children.

People may come in contact with high concentrations of lead in neighborhoods where industrial activity contributed metals to the soil. In some areas high concentrations of lead are naturally-occurring in the rocks and soil. In areas like Rico where mining, milling and smelting of metals took place, mine wastes containing high levels of lead may spread into yards. Exposure happens when residents:

- swallow contaminated soil, dust, or vegetables grown in contaminated soil, or
- breathe in air containing contaminated dust inside or outside the home.

You may accidentally swallow soil and dust while smoking or eating with unwashed hands. Young children are even more likely to accidentally swallow lead contaminated dust or soil because they place dusty fingers and toys in their mouth. Children come in contact with lead in soil when playing in their yards, touching pets who may bring dirt in from outside, or eating unwashed vegetables from home gardens.

Garden soil usually contains lower levels of metals than the surrounding yard. Application of compost and other soil additives tends to decrease the level of metals in soil and decrease plant uptake of metals from soil.

In areas, like Rico, where there is snow covering the ground during the winter, exposure is less likely during those months.

What are the adverse health effects of lead?

Lead can accumulate in the body over time if exposure is frequent or continuous. It can cause harm if elevated levels remain in the body. Adverse health effects of lead may include high blood pressure, an inability to absorb vitamin D, decreased kidney filtration and nervous system damage.

Young children are especially sensitive to the effects of lead exposure because their bodies and brains are still developing and their stomachs absorb more lead than adults. Children play outside where they are more likely to be exposed to lead in the soil. They also are more likely to put dirty fingers and toys into their mouth. Exposure to lead may damage the nervous system of young children and cause decreased IQ, impaired hand-eye coordination and slowed development. It may also contribute to shortened attention span.

Pregnant women may pass lead from their bodies to their fetus so should be very careful to avoid exposure to lead.

Most children won't show any visible symptoms of lead poisoning. The only way to know if children are exposed to lead is to get their blood tested.

It is important to remember that the same adverse health effects can be caused by a variety of other factors. Not everyone exposed to lead will develop health problems. An individual's age, habits, and overall nutrition also affect risk.

How can I reduce my exposure to metals in soil?

You can reduce your exposure by taking the following precautions:

- Wash your hands thoroughly before eating or handling food. Parents should wash their children's hands regularly during the day to reduce the likelihood that children will put dirty fingers in their mouth. Always wash

children's hands before eating and taking naps.

- Wash your hands after petting a dog or other animal.
- Wash and peel root vegetables before you cook or eat them. Wash your hands when you finish gardening.
- Wash children's outdoor toys when they get dirty or dusty.
- Keep your house free of dust. Close windows and doors when it is windy. Change air conditioner and furnace filters regularly—at least every six months. Vacuum and clean floors regularly. Use a damp cloth to clean any surfaces, such as tables, counters and desks, that are frequently touched by hands. Remove shoes or wipe them off before entering the house.
- Maintain a good lawn or groundcover to prevent the potential of contact with bare soil. Encourage children to play in areas of the yard that are covered by grass not bare soil.
- Feed children foods rich in Vitamin C, calcium and iron.

While taking these precautions will not solve the contamination problem, they are relatively simple and will help reduce your contact with contaminated soil.

Additional general information about lead may be found on the Agency for Toxic Substances and Disease Registry internet web site: www.atsdr.cdc.gov/toxfaq.html or by contacting the following EPA and Colorado Department of Public Health and the Environment (CDPHE) staff:

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